



## STATE OF WISCONSIN

Department of Safety and Professional Services  
1400 E Washington Ave.  
Madison WI 53703

**Governor Scott Walker**

**Secretary Dave Ross**

Mail to:  
Industry Services Division  
Elevator (Conveyance) Safety Program  
141 NW Barstow St, 4<sup>th</sup> Floor  
Waukesha, WI. 53188-3789

Email: [dsps@wisconsin.gov](mailto:dsps@wisconsin.gov)

Web: <http://dsps.wi.gov>

Voice: 262 521-5444 • FAX: 262 548-8614 • TTY: 608 267-2416

## Addition or Alteration to Elevator Door Reopening Devices

**Date:** October 23, 2014, revision to previous memo dated September 24, 2012.

### **Subject of revision:**

Additional information regarding installation of door reopening devices.

### **Background:**

Power operated doors for passenger elevators are equipped with a device to detect an obstruction in the elevator doorway. The obstruction may be a passenger or something being taken into or out of the elevator by the passenger. Upon detecting an obstruction, the device signals the door operator to stop closing the door and to reopen it.

Many older elevators are equipped with a reopening device that is activated by contacting an obstruction before the door will stop and reopen. This is no longer the preferred type of reopening device because contact before the door stops and reopens may injure a person entering or exiting the elevator.

In addition to the contact type device, many elevators in the 1970's through the early- 2000's were equipped with electric eyes or "photo eyes" that would detect an obstruction at 5" and 29" above the floor without requiring contact.

Modern non-contact door reopening devices are capable of detecting an obstruction for nearly the entire height of the doorway. Some also detect an object in the lobby before it has entered the plane of the doorway.

### **Question:**

Under what conditions are prior approval from the department or agent municipality and immediate inspection required for installation of a non-contact type elevator door reopening device?

### **Answer:**

Table SPS 318.1007-1, item 10 requires application submittal and approval prior to beginning the installation, and inspection must be completed by the department or agent municipality prior to returning the elevator to service under these conditions:

- 1). The elevator is equipped with firefighters emergency operation (Phase I or both Phase I and Phase II).
- 2). The elevator is not already equipped with photo eyes or other non-contact type reopening device.

AND

- 3). A contact type reopening device is to be removed with the installation of the new non-contact type reopening device.

**Notes:**

Installation of a new door reopening device must comply with all applicable codes including:

ASME A17.1, 8.7.2.13 and 8.7.3.13.2. The re-opening device must operate per

a). A17.1, 2.13.4 (including door closing kinetic energy and force).

b). A17.1, 2.13.5 (including reduced door closing kinetic energy – “nudging”).

c). where firefighters emergency operation is provided, door reopening devices and door closing on Phase I and Phase II shall comply with the requirements applicable at the time of installation of firefighters emergency operation.

ASME A17.1, 8.6.1.2.2(a) and SPS 318.1708(2)(b). Wiring diagrams must be updated to include any new wiring associated with the installation of the device.

ASME A17.1, 8.6.1.4.1(b) and SPS 318.1708(2)(b). The maintenance record must be updated to include installation of the reopening device.

ICC / ANSI A117.1, 407.3.3. The reopening device must operate per these requirements.

NEC 620.22. The reopening device is not required to be on a dedicated circuit however the reopening device may not be on a circuit required to be separate or dedicated for other purposes such as the elevator car lights, car heating or car ventilation.

The installation of a non-contact reopening device that is not required to be inspected immediately will be inspected as part of the next annual inspection.